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**CATCH AND EFFORT DATA FROM A PILOT
SURVEY OF CHARTERBOAT CAPTAINS IN
THE SOUTHEASTERN UNITED STATES, 1982**

Mark L. Williams

Harold A. Brusher

Lee Trent

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**U.S. DEPARTMENT OF COMMERCE
Malcolm Baldrige, Secretary
National Oceanic and Atmospheric Administration
John V. Byrne, Administrator
National Marine Fisheries Service
William G. Gordon, Assistant Administrator for Fisheries**

INTRODUCTION

A pilot study to evaluate the feasibility of obtaining recreational fishing data under contract with charterboat captains was conducted by personnel of the National Marine Fisheries Service (NMFS), Southeast Fisheries Center, Panama City Laboratory, during 1982. Captains who conducted chartered fishing trips off the southeastern United States coast were contracted to provide daily records of their catch and effort to us. The purpose of this report is to make available the detailed data provided by each of the survey participants.

METHODS

Nine charterboat captains from five regions (Figure 1) participated in the survey. Log sheets (Figure 2) and self-addressed, government-franked envelopes were provided to the captains, who completed the form using the following definitions:

1. Fishing Zone -- Three distinct fishing zones were defined: estuarine or bay waters (zone 1), offshore waters less than ten fathoms deep (zone 2), and offshore waters over ten fathoms deep (zone 3). When more than one zone was fished, all pertinent numbers were recorded.
2. Fishing Method -- "Troll" was defined as fishing activity undertaken with the boat moving under power. "Bottom" included all other fishing, including "conventional" bottom-fishing, drift-fishing, and flylining.
3. Hours Actually Fished -- Only actual fishing times, rounded to the nearest half-hour, were reported. Running times when hooks were not in the water were specifically excluded.
4. Species and Number Caught -- The catches of all species were reported. Any species not included in the printed list of twenty-four were identified in lines 25 through 30 and the number of fish that were caught was noted in the appropriate column.

Each week, log sheets were mailed to the Panama City Laboratory, where the data were transcribed into a computerized system that archived the data and provided analyses.

RESULTS AND INTERPRETATION

Appendix Tables 1 through 9 are the data listings by region and fishing method. The elements of the Appendix Tables are defined as:

1. Date -- the actual date fishing activity occurred.
2. Zone -- fishing in multiple zones is reported as:
 - zone 4 (i.e., fished in zones 1 and 2);
 - zone 5 (i.e., fished in zones 1 and 3);
 - zone 6 (i.e., fished in zones 2 and 3);
 - zone 7 (i.e., fished in zones 1, 2, and 3).
3. Hours fished -- the total number of hours fished by a single boat on all of its trips on one day using a particular method.

4. Catch per species -- each catch is reported in a "species-code(number-caught)" format; that is, of each pair of numbers, the species code (Table 1) is on the left and the number of fish that were caught is on the right in parentheses. For example, the first entry in Appendix Table 1 shows that fifty bluefish were caught.

5. Continuation lines -- when more than one line is required to display a day's catch data, the catches are continued on the next line but the date, zone, and hours-fished are not repeated (see Appendix Table 1, May 29). However, when a continuation must extend from the bottom of one column to the top of the next column, the trip information is repeated in the new column and a "+" is inserted after the hours-fished (see Appendix Table 2, October 13).

Table 1. Common names, scientific names, and numeric codes of reported species.

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>SPECIES CODE</u>
Albacore	<u><i>Thunnus alalunga</i></u>	32
Almaco jack	<u><i>Seriola rivoliana</i></u>	41
Atlantic bonito	<u><i>Sarda sarda</i></u>	8
Atlantic croaker	<u><i>Micropogonias undulatus</i></u>	27
Atlantic sharpnose shark	<u><i>Rhizoprionodon terraenovae</i></u>	56
Banded rudderfish	<u><i>Seriola zonata</i></u>	66
Bar jack	<u><i>Caranx ruber</i></u>	67
Black drum	<u><i>Pogonias cromis</i></u>	43
Black grouper	<u><i>Mycteroperca bonaci</i></u>	19
Black sea bass	<u><i>Centropristes striata</i></u>	15
Blackfin tuna	<u><i>Thunnus atlanticus</i></u>	23
Blacktip shark	<u><i>Carcharhinus limbatus</i></u>	29
Blue marlin	<u><i>Makaira nigricans</i></u>	38
Blue runner	<u><i>Caranx cryos</i></u>	7
Bluefin tuna	<u><i>Thunnus thynnus</i></u>	65
Bluefish	<u><i>Pomatomus saltatrix</i></u>	5
Cero	<u><i>Scomberomorus regalis</i></u>	25
Cobia	<u><i>Rachycentron canadum</i></u>	2
Conger eels	<u><i>Congridae</i></u>	44
Crevalle jack	<u><i>Caranx hippos</i></u>	12
Cusk-eels	<u><i>Ophidiidae</i></u>	47
Dolphin	<u><i>Coryphaena hippurus</i></u>	24
Dusky shark	<u><i>Carcharhinus obscurus</i></u>	75
Flounder	<u><i>Paralichthys</i> sp.</u>	70
Gafftopsail catfish	<u><i>Bagre marinus</i></u>	73
Gag	<u><i>Mycteroperca microlepis</i></u>	17
Gray snapper	<u><i>Lutjanus griseus</i></u>	54
Gray triggerfish	<u><i>Balistes capriscus</i></u>	20
Great barracuda	<u><i>Sphyraena barracuda</i></u>	11
Greater amberjack	<u><i>Seriola dumerilli</i></u>	13
Hammerhead shark	<u><i>Sphyraena</i> sp.</u>	35
Horse-eye jack	<u><i>Caranx latus</i></u>	74
Houndfish	<u><i>Tylosurus crocodilus</i></u>	40
Jewfish	<u><i>Epinephelus itajara</i></u>	64
King mackerel	<u><i>Scomberomorus cavalla</i></u>	1
Kingfish	<u><i>Menticirrhus</i> sp.</u>	45
Ladyfish	<u><i>Elops saurus</i></u>	9
Lane snapper	<u><i>Lutjanus synagris</i></u>	42
Lesser amberjack	<u><i>Seriola fasciata</i></u>	72
Little tunny	<u><i>Euthynnus alletteratus</i></u>	6
Lookdown	<u><i>Selene vomer</i></u>	71
Mako	<u><i>Isurus</i> sp.</u>	33
Morays	<u><i>Muraenidae</i></u>	51
Mutton snapper	<u><i>Lutjanus analis</i></u>	60
Pinfish	<u><i>Lagodon rhomboides</i></u>	30
Porgies	<u><i>Sparidae</i></u>	50
Rainbow runner	<u><i>Elagatis bipinnulata</i></u>	57

Table 1 (continued). Common names, scientific names, and numeric codes of reported species.

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>SPECIES CODE</u>
Red drum	<u>Scaenops ocellatus</u>	4
Red grouper	<u>Epinephelus morio</u>	18
Red snapper	<u>Lutjanus campechanus</u>	14
Rock sea bass	<u>Centropristes philadelphica</u>	69
Sailfish	<u>Istiophorus platypterus</u>	39
Sand seatrout	<u>Cynoscion arenarius</u>	28
Scamp	<u>Mycteroperca phenax</u>	16
Searobins	Triglidae	46
Seatrout	<u>Cynoscion</u> sp.	58
Sharks	Squalliformes	36
Sheepshead	<u>Archosargus probatocephalus</u>	34
Silky shark	<u>Carcharhinus falciformis</u>	59
Skipjack tuna	<u>Euthynnus pelamis</u>	68
Soapfish	<u>Rypticus</u> sp.	53
Spadefish	<u>Chaetodipterus faber</u>	63
Spanish mackerel	<u>Scomberomorus maculatus</u>	3
Spinner shark	<u>Carcharhinus brevipinna</u>	52
Spotted seatrout	<u>Cynoscion nebulosus</u>	31
Tarpon	<u>Megalops atlanticus</u>	10
Toadfish	<u>Opsanus</u> sp.	48
Tripletail	<u>Lobotes surinamensis</u>	61
Vermilion snapper	<u>Rhomboplites aurorubens</u>	62
Wahoo	<u>Acanthocybium solanderi</u>	22
Warsaw grouper	<u>Epinephelus nigritus</u>	37
White marlin	<u>Tetrapturus albidus</u>	55
Yellowfin grouper	<u>Mycteroperca venenosa</u>	49
Yellowfin tuna	<u>Thunnus albacares</u>	21
Yellowtail snapper	<u>Ocyurus chrysurus</u>	26

Figure 1. Charterboat sampling ports, 1982, showing (1) estuarine zones, (2) oceanic zones less than 10 fathoms, and (3) oceanic zones greater than 10 fathoms.

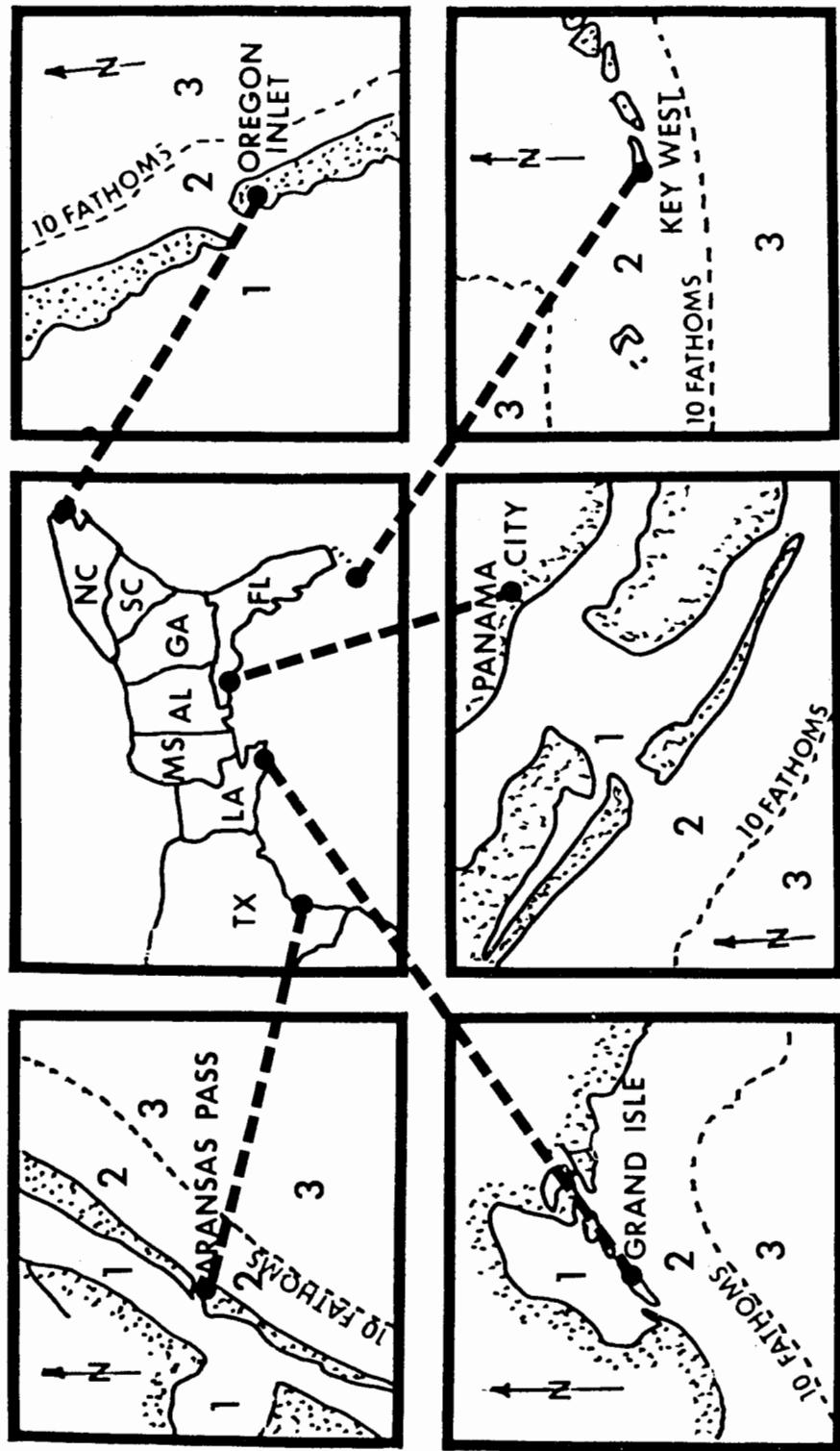


Figure 2. Log used in the 1982 charterboat survey.

Day Area Location Number(s)		Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Charter Boat Name	Comments
Fishing Method		Troll	Bottom	Troll	Bottom	Troll	Bottom	Troll	Bottom	
Hours Actually Fished	Species									
1	King mackerel									
2	Cobia (ling)									
3	Spanish mackerel									
4	Ridish									
5	Blunfish									
6	Little tunny (bonito)									
7	Blue turner (hardtail)									
8	Atlantic bonito									
9	Ladifish (skipjack)									
10	Tarpon									
11	Great barracuda									
12	Cowfish									
13	Greater amberjack									
14	Red snapper									
15	Black sea bass									
16	Scamp									
17	Gag grouper (black)									
18	Red grouper									
19	Black grouper									
20	Grav triggerfish									
21	Yellowfin tuna									
22	Waloo									
23	Blackfin tuna									
24	Dolphin									
25										
26										
27										
28										
29										
30										

APPENDIX TABLE 1. LOGGED 1982 TROLL-FISHING CATCH AND EFFORT FROM OREGON INLET, NC.

DATE	ZONE	HOURS		DATE	ZONE	HOURS	
		FISHED	-- CATCH PER SPECIES ---			FISHED	-- CATCH PER SPECIES ---
10 APR	3	7.0	5(50)	22 MAY	3	8.0	21(1)
12 APR	3	4.0	5(46)	22 MAY	3	6.0	24(16)
12 APR	3	4.5	5(31)	23 MAY	3	8.0	24(20)
13 APR	3	4.5	5(56)	24 MAY	3	6.0	5(42) 24(26)
13 APR	3	8.0	5(125)	25 MAY	3	6.0	21(3) 22(1) 24(52)
15 APR	3	8.0	6(97)	25 MAY	3	8.0	21(9) 24(12)
15 APR	3	4.5	5(17) 32(1)	26 MAY	3	6.0	24(57)
16 APR	3	8.0	5(60)	27 MAY	3	6.0	21(11) 24(60)
16 APR	3	4.0	6(45)	27 MAY	3	8.5	5(15) 24(15)
17 APR	3	4.0	21(1) 24(2)	28 MAY	3	8.0	21(2) 24(40)
17 APR	3	7.0	1(4) 24(1) 32(2)	28 MAY	3	6.0	24(79)
18 APR	2	3.0	5(122)	29 MAY	3	6.0	5(12) 22(1) 24(62)
19 APR	2	3.5	5(126)			68(2)	
20 APR	2	4.5	5(62)	30 MAY	3	8.0	1(1) 24(30)
21 APR	2	3.5	5(56)	31 MAY	3	8.5	24(30)
21 APR	2	3.0	5(65)	31 MAY	3	6.0	24(96)
24 APR	3	6.0	5(70)	1 JUN	3	8.0	1(2) 5(19) 32(1)
24 APR	2	8.0	5(85)	2 JUN	3	8.5	21(1) 24(3)
25 APR	2	3.5	5(52) 32(2)	3 JUN	3	8.5	6(1) 21(12) 22(1)
25 APR	3	5.0	5(85)	4 JUN	3	8.5	21(32) 24(5)
26 APR	2	3.5	5(14) 33(1)	5 JUN	3	8.5	24(1)
30 APR	2	5.0	5(60)	5 JUN	3	7.0	21(1)
1 MAY	2	10.0	5(110)	6 JUN	3	8.0	21(5)
1 MAY	3	7.0	5(125)	7 JUN	3	8.5	1(3) 6(1) 21(12)
2 MAY	2	8.0	5(90) 32(2)			24(50)	
3 MAY	2	2.5	5(55) 32(1)	8 JUN	3	8.0	1(1) 21(19) 35(1)
4 MAY	3	5.5	8(4) 23(1) 24(2)	8 JUN	3	6.0	21(34) 68(3)
4 MAY	3	3.5	5(15) 22(1)	9 JUN	3	6.0	21(25) 24(15)
5 MAY	2	2.5	5(60)	9 JUN	3	6.0	21(45) 68(4)
6 MAY	3	8.0	21(2)	10 JUN	3	6.0	21(37) 68(10)
7 MAY	6	8.0	5(26) 32(4)	10 JUN	3	8.0	6(1) 21(32) 24(12)
8 MAY	6	8.0	5(25) 32(5)	12 JUN	3	8.0	21(17) 24(5)
8 MAY	3	5.0	1(81) 6(1)	12 JUN	3	6.0	1(5) 21(24) 22(1)
11 MAY	3	8.0	5(58)			24(3) 68(1)	
11 MAY	6	3.5	5(20)	13 JUN	3	8.0	21(17) 24(15) 55(1)
14 MAY	3	4.0	5(31)	15 JUN	3	9.0	21(5) 24(152) 55(2)
15 MAY	3	6.0	22(1) 24(21)	15 JUN	3	6.0	21(12) 22(1) 24(129)
15 MAY	3	8.5	24(20)			68(2)	
16 MAY	3	8.0	24(3) 36(1)	16 JUN	3	6.0	21(23) 24(12) 68(1)
17 MAY	3	8.0	24(15) 38(1)	16 JUN	3	8.5	21(17) 24(11)
17 MAY	2	4.0	5(88)	17 JUN	3	8.0	21(1) 22(2) 24(75)
18 MAY	3	6.0	24(82)	17 JUN	3	6.0	21(1) 22(1) 24(8)
18 MAY	3	8.0		18 JUN	3	6.0	21(32) 68(1)
19 MAY	3	6.0	24(40)	18 JUN	3	8.0	21(30) 35(1)
20 MAY	1	4.0	5(250)	21 JUN	3	8.0	21(21) 22(2)
21 MAY	3	6.0	22(3) 23(8) 24(21)	21 JUN	3	6.0	21(36)
21 MAY	3	8.0	21(6) 24(12)	22 JUN	3	6.0	21(49)

APPENDIX TABLE 1 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --	DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --
22 JUN	3	8.0	21(30) 22(2) 24(62)	17 JUL	3	8.0+	55(1)
23 JUN	3	8.0	21(18) 22(1)	18 JUL	3	8.0	38(1)
23 JUN	3	6.0	21(20) 22(2) 24(1)	19 JUL	3	8.0	8(2) 24(35)
24 JUN	3	6.0	21(19) 65(7)	19 JUL	3	6.0	21(2) 24(153)
24 JUN	3	8.0	21(21) 24(32)	20 JUL	3	6.0	
25 JUN	3	8.0	21(12) 24(12)	20 JUL	3	8.0	24(20) 55(1)
25 JUN	3	6.0	21(18)	21 JUL	3	8.0	8(1) 24(35) 38(1)
26 JUN	3	6.0	21(12) 24(1) 38(1)				39(1)
26 JUN	3	8.0	21(4) 24(1) 55(1)	22 JUL	3	8.0	21(2) 24(15) 55(2)
27 JUN	3	10.0	21(7) 24(115) 65(1)	22 JUL	3	6.0	21(1) 24(3)
28 JUN	3	9.0	1(6) 6(2) 21(5)	23 JUL	3	6.0	21(3) 22(2) 24(4)
28 JUN	3	6.0	21(32)	23 JUL	3	8.0	8(3) 21(4) 24(25)
29 JUN	3	6.0	21(2)	24 JUL	3	8.0	21(5) 24(20)
29 JUN	3	8.0	1(7) 21(6) 24(2)	24 JUL	3	6.0	24(49)
30 JUN	3	6.0	21(21)	25 JUL	3	7.5	6(10) 21(11) 22(1)
1 JUL	3	4.0	1(3)				24(40)
1 JUL	3	8.0	5(15) 21(5) 24(2)	26 JUL	3	8.5	6(4) 21(3) 24(63)
		65(12)		26 JUL	3	6.0	21(3) 24(63) 68(12)
2 JUL	3	8.0	21(1)	27 JUL	3	6.0	24(87) 68(9)
2 JUL	3	6.0	5(56) 21(3)	27 JUL	3	8.0	6(7) 21(5) 24(25)
3 JUL	3	6.0	24(1) 55(1)				55(1)
3 JUL	3	8.0	21(3) 22(1) 55(6)	28 JUL	3	8.0	6(11) 21(1) 24(71)
4 JUL	3	8.0	1(3) 22(1) 23(1)	28 JUL	3	6.0	24(67) 68(2)
		24(2)		29 JUL	3	7.5	21(2) 24(64)
6 JUL	3	6.0	5(1) 55(1)	29 JUL	3	6.0	21(1) 22(2) 24(42)
7 JUL	3	6.0	21(3) 24(50) 55(1)				68(3)
7 JUL	3	8.0	21(3)	30 JUL	3	8.0	6(12) 21(1) 24(40)
8 JUL	3	8.0	24(2)	30 JUL	3	6.0	23(2) 24(162) 68(2)
8 JUL	3	6.0	24(71) 55(1)	6 AUG	3	6.0	22(2) 23(7) 24(30)
9 JUL	3	6.0	21(14) 68(2)	7 AUG	3	6.0	22(1) 23(3) 24(84)
9 JUL	3	8.0	22(1) 38(1) 55(2)				68(4)
10 JUL	3	8.0	6(1)	9 AUG	3	6.0	21(3) 24(15)
10 JUL	3	6.0	21(3) 24(73) 55(1)	10 AUG	3	6.0	21(3) 24(8)
		68(5)		11 AUG	3	6.0	24(1) 38(1) 55(1)
11 JUL	3	9.0					68(2)
12 JUL	3	6.0	1(1) 21(3) 22(3)	12 AUG	3	6.0	1(2) 21(5) 22(2)
		24(63)					24(7) 68(6)
13 JUL	3	6.0	21(14) 24(41) 68(2)	13 AUG	3	6.0	21(5) 24(15) 68(25)
13 JUL	3	8.0	21(5) 24(14)	14 AUG	3	6.0	21(16) 24(1) 55(1)
14 JUL	3	8.0	6(2) 21(13)				68(6)
14 JUL	3	6.0	24(23)	16 AUG	3	6.0	24(4)
15 JUL	3	6.0	21(3) 24(115) 68(5)	17 AUG	3	6.0	22(2) 23(4) 24(166)
15 JUL	3	8.0	8(15) 22(1) 24(76)	18 AUG	3	6.0	24(106)
16 JUL	3	8.0	8(1) 55(1)	19 AUG	3	6.0	22(3) 23(14) 24(136)
16 JUL	3	6.0	21(3) 24(93) 68(4)	20 AUG	3	6.0	21(2) 23(2) 24(76)
17 JUL	3	6.0	24(71)	23 AUG	3	6.0	24(67) 38(1) 55(1)
17 JUL	3	8.0	21(4) 24(30) 38(1)	24 AUG	3	6.0	24(37) 55(2)

APPENDIX TABLE 1 (CONTINUED).

DATE	ZONE	HOURS		DATE	ZONE	HOURS	
		FISHED	-- CATCH PER SPECIES ---			FISHED	-- CATCH PER SPECIES ---
25 AUG	3	6.0	55(4)				
27 AUG	3	6.0	24(94) 55(1)				
28 AUG	3	6.0	55(3)				
30 AUG	3	6.0	24(55) 55(1)				
31 AUG	3	6.0	24(48) 38(1)				
1 SEP	3	6.0	24(94) 55(1)				
2 SEP	3	6.0	24(90) 38(1) 55(1)				
7 SEP	3	6.0	21(2) 55(3)				
10 SEP	3	6.0	55(3)				
11 SEP	3	6.0	55(3)				
13 SEP	3	6.0	55(5)				
14 SEP	3	6.0	24(58) 55(5)				
15 SEP	3	6.0	24(114) 55(4)				
16 SEP	3	6.0	24(20)				
17 SEP	3	6.0	21(7) 24(32)				
18 SEP	3	6.0	21(6) 24(92) 55(3)				
20 SEP	3	6.0	21(3) 24(59)				
21 SEP	3	6.0	21(1) 24(32)				
22 SEP	3	6.0	21(2) 22(4) 55(1)				
23 SEP	3	6.0	21(2) 55(1)				
24 SEP	3	6.0	22(3) 24(62) 55(1)				
25 SEP	3	6.0	21(3) 22(2) 23(3)				
			24(10) 55(1)				
28 SEP	3	6.0	1(5) 6(5)				
29 SEP	3	6.0	21(32) 24(3)				
30 SEP	3	6.0	21(16) 22(1)				
2 OCT	3	6.0	21(15) 55(1)				
4 OCT	3	7.5	1(28) 6(1) 24(1)				
5 OCT	3	6.0	6(3) 24(118)				
6 OCT	3	6.0	21(6) 24(86) 68(1)				
7 OCT	3	6.0	21(23) 24(16) 39(1)				
8 OCT	3	7.0	1(19) 5(14) 6(21)				
			24(1) 33(1)				
9 OCT	3	6.0	1(4) 6(6) 24(54)				
			39(1)				
15 OCT	3	7.0	1(9) 5(1) 6(7)				
16 OCT	3	7.0	1(14) 6(8)				
18 OCT	3	7.0	1(49) 6(1)				
19 OCT	3	4.0	1(86) 6(6) 23(1)				
20 OCT	3	6.5	1(90) 6(6)				
21 OCT	3	6.5	1(52) 6(3)				

APPENDIX TABLE 2. LOGGED 1982 TROLL-FISHING CATCH AND EFFORT FROM KEY WEST, FL.

DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---						DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---					
		11(1)	23(2)	24(2)	25(2)	26(1)	27(1)			30(1)	31(1)	32(1)	33(1)	34(1)	35(1)
29 MAR	3	6.0	11(1)	23(2)	24(2)	25(2)	26(1)	16 APR	3	6.0	6(1)	24(26)	25(2)		
			39(1)					17 APR	3	6.0					
29 MAR	2	2.5	7(1)	11(2)	17(1)	19(1)	25(1)	26(6)		6.0	1(1)	8(1)	11(3)		
											22(1)	39(1)			
30 MAR	3	6.0	1(1)	6(6)	11(1)	12(1)	19(3)	24(2)	18 APR	3	5.0	11(4)	39(1)		
									18 APR	3	2.5	39(1)			
			25(5)						19 APR	3	1.5	8(1)			
30 MAR	3	5.0	8(1)	11(1)	22(1)	23(2)	24(1)		20 APR	3	6.0	6(1)	24(14)	25(1)	
									22 APR	3	6.0	22(2)	24(26)		
31 MAR	3	2.0	6(1)	25(1)					23 APR	3	2.5	22(1)	24(1)		
1 APR	6	6.0	6(1)	7(1)	11(2)	17(1)	19(4)	25(2)	24 APR	3	6.0	1(1)	22(1)	24(26)	
									24 APR	3	5.5	11(1)	22(1)	24(7)	
			26(12)						27 APR	3	5.0	24(8)			
1 APR	3	5.0	25(2)						28 APR	3	5.0	11(3)	24(5)		
2 APR	2	2.0	11(3)	25(3)					29 APR	3	5.0	11(1)	24(1)		
2 APR	3	6.0	24(10)	26(4)					30 APR	3	2.5	13(4)			
3 APR	6	6.0	6(1)	11(4)	24(2)				1 MAY	3	6.0	24(26)			
			25(3)	26(6)	39(1)				1 MAY	3	2.0	24(1)			
3 APR	3	3.0	22(1)	24(9)					2 MAY	3	3.5	24(6)			
4 APR	3	6.0	1(1)	6(1)	8(1)	11(2)	13(2)	25(8)	3 MAY	3	2.5	6(1)	22(1)	24(7)	
									3 MAY	3	3.0	8(4)	24(5)		
5 APR	3	6.0	6(1)	19(1)	22(1)	24(2)	26(6)		4 MAY	3	5.5	23(1)			
									5 MAY	3	5.0	24(11)			
5 APR	2	3.5	11(3)	17(1)	19(3)	25(2)			5 MAY	3	6.0	11(2)	24(11)		
									8 MAY	3	6.0	24(7)			
6 APR	3	5.5	8(1)	11(1)	39(2)				8 MAY	3	6.5	24(7)			
7 APR	3	4.5	1(1)	8(2)	11(1)	22(1)			9 MAY	3	6.0	24(50)			
									11 MAY	3	6.0	12(1)	13(1)	24(2)	
7 APR	3	6.0	1(1)	6(8)	11(2)				13 MAY	3	3.5	24(20)			
8 APR	3	6.5	8(4)	11(2)	24(2)				14 MAY	3	6.0	24(70)	59(3)		
9 APR	3	4.5	8(8)	22(1)	23(1)	24(1)			15 MAY	3	6.0	24(25)			
									15 MAY	3	6.0	13(1)	24(14)		
9 APR	3	6.0	6(5)	11(8)	12(1)	19(1)	23(2)	24(1)	16 MAY	3	3.0	11(2)	24(15)		
									17 MAY	3	2.0	24(9)			
			26(9)						18 MAY	3	6.0	13(2)			
10 APR	3	6.0	1(1)	6(7)	11(5)	22(1)	23(1)	24(11)	18 MAY	3	5.0	24(4)			
						25(2)	39(1)		19 MAY	3	6.0	11(2)	24(13)	39(2)	
10 APR	3	4.5	8(8)	11(3)	22(2)	24(2)			19 MAY	3	6.0	11(1)	22(1)	24(2)	
									20 MAY	3	2.0	24(5)			
11 APR	3	6.5	1(1)	8(4)	11(3)	22(1)	24(1)	39(2)	20 MAY	3	6.0	24(24)			
									22 MAY	3	6.0	8(3)	11(3)	24(18)	
11 APR	3	6.0	1(1)	6(3)	11(4)	23(3)	24(2)		22 MAY	3	6.0	11(1)	24(25)		
									23 MAY	3	6.0	6(1)	24(13)		
13 APR	3	5.0	21(1)	24(3)					24 MAY	3	2.0	24(4)			
14 APR	3	3.0	24(4)						25 MAY	3	4.0	24(11)			
15 APR	3	6.0	6(3)	23(1)	24(14)				26 MAY	3	2.5	24(9)			

APPENDIX TABLE 2 (CONTINUED).

DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---				DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---			
		2.5	24(9)					3	4.0	8(6) 11(1) 26(3)	
28 MAY	3	3.0	24(16)			11 JUL	3	6.0	22(1) 24(11)		
29 MAY	3	5.0	24(5)			12 JUL	3	4.5	6(5) 11(1) 24(53)		
29 MAY	3	5.0	11(1) 24(17)			14 JUL	3	6.0	24(35) 61(1)		
30 MAY	3	6.0	24(22)			16 JUL	3	6.0	24(40) 38(1)		
30 MAY	3	1.5	24(16)			17 JUL	3	7.0	11(1) 24(2)		
31 MAY	3	6.0	24(30)			18 JUL	3	7.0	11(1) 24(2)		
1 JUN	3	6.0	22(1) 23(1) 24(15)			18 JUL	3	6.0	24(51)		
5 JUN	3	6.0	11(1) 23(1) 24(5)			19 JUL	3	7.0	24(3)		
6 JUN	3	6.0	24(6)			25 JUL	3	2.5	24(11)		
6 JUN	6	6.0	11(1) 18(3) 24(11)			25 JUL	3	6.0	11(1) 24(50)		
		26(1) 60(1)				26 JUL	3	6.0	11(2) 24(25)		
7 JUN	3	4.5	8(2) 11(2) 24(12)			26 JUL	3	6.0	22(2) 24(19)		
7 JUN	3	6.0	11(1) 24(9)			27 JUL	2	2.5	11(1) 24(11)		
8 JUN	3	6.0	24(25) 60(1)			27 JUL	3	6.0	24(75) 59(1)		
8 JUN	3	6.0	24(46)			28 JUL	3	6.0	24(8) 59(2)		
9 JUN	3	6.0	8(1) 11(1) 24(14)			28 JUL	3	6.0	11(2) 24(29) 39(1)		
9 JUN	3	6.0	6(3) 11(2) 22(1)			29 JUL	3	2.5	11(3) 22(1) 24(7)		
		24(17) 60(2)				1 AUG	3	6.0	24(26) 68(1)		
10 JUN	3	6.0	24(38)			2 AUG	3	5.0	11(2) 22(1) 24(17)		
11 JUN	3	6.0	11(1) 22(1) 24(6)			3 AUG	3	3.0			
12 JUN	3	6.0	11(1) 22(1) 24(40)			3 AUG	6	3.0	11(4)		
		61(1)				4 AUG	3	6.0	11(1) 24(7)		
13 JUN	3	2.5	8(1) 11(2) 22(1)			7 AUG	3	4.0	24(3)		
		24(20)				8 AUG	3	6.0	8(1) 11(7) 22(1)		
14 JUN	3	5.0	11(1) 24(40)					24(12) 36(1)			
14 JUN	3	6.0	24(37)			10 AUG	2	3.0	11(15)		
15 JUN	3	6.0	24(2)			11 AUG	3	6.0	24(22)		
20 JUN	3	6.0	8(6) 11(2) 24(4)			11 AUG	3	6.0	6(1) 11(2) 24(27)		
24 JUN	3	6.0	6(2) 24(9)			12 AUG	6	6.0	11(2)		
26 JUN	3	6.0	6(1) 24(6) 39(1)			13 AUG	3	6.0	11(1) 24(28) 36(1)		
27 JUN	3	6.0	6(2) 11(2) 24(5)			14 AUG	6	6.0	11(24) 25(1)		
29 JUN	3	2.5	11(2) 24(2)			14 AUG	3	6.0	6(1) 11(2)		
30 JUN	3	6.0	11(1) 24(40)			15 AUG	2	3.0	6(1) 11(5) 26(2)		
2 JUL	3	6.0	11(1) 24(10)			15 AUG	3	6.0	39(1)		
3 JUL	3	3.0	11(7) 25(1) 26(1)			16 AUG	2	0.5	11(5)		
3 JUL	3	2.5	6(5) 10(1) 25(2)			17 AUG	3	6.0	6(4) 11(1) 22(1)		
4 JUL	3	6.5	22(1) 24(31)					26(1)			
4 JUL	3	6.0	7(1) 24(63) 36(1)			18 AUG	3	6.0	1(1) 8(1) 11(5)		
5 JUL	2	2.5	1(1) 6(2) 11(4)					22(1) 25(4)			
		25(1)				20 AUG	3	7.0	11(6) 24(10)		
6 JUL	2	2.5	6(9) 11(1) 25(1)			20 AUG	3	4.0	1(2) 6(1) 7(1)		
7 JUL	3	6.0	11(1) 24(35)					11(2) 24(14) 26(2)			
8 JUL	3	6.0	11(1) 24(13)					54(1)			
9 JUL	3	6.0	24(23)			22 AUG	2	0.5	11(11)		
10 JUL	3	6.0	11(1) 24(14)			22 AUG	6	6.0	1(6) 8(12) 11(6)		
11 JUL	3	6.0	6(1) 11(2) 24(34)					13(1) 22(1) 25(3)			

APPENDIX TABLE 2 (CONTINUED).

DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---						DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
23 AUG	3	6.0	1(3)	8(10)	11(5)											6.0+	26(16)	67(1)	
			22(1)	25(2)												6.0	11(10)	24(2)	
23 AUG	2	6.0	1(3)	6(7)	11(8)												39(1)	26(6)	
25 AUG	3	4.0	1(6)	8(8)	11(6)											3.0	11(12)	26(4)	
			25(1)													6.0	11(14)	19(1)	
28 AUG	3	6.0	1(7)	6(8)	11(12)												25(2)	26(13)	
			22(1)													3.0	11(6)	12(1)	
28 AUG	2	6.0	1(2)	6(4)	11(3)												6.0	26(9)	67(1)
29 AUG	2	3.0	11(3)	26(1)	39(1)											3.0	6(1)	11(11)	
31 AUG	3	6.0	11(3)	24(20)	55(1)												26(6)		
1 SEP	3	6.0	1(2)	8(5)	11(10)											5.5	11(7)	19(1)	
3 SEP	2	6.0	6(2)	11(8)	22(1)											6.0	26(5)		
			23(3)													2.0	6(1)	11(1)	
4 SEP	2	6.0	8(1)	11(22)	25(2)											7.0			
			26(6)													7.0	38(1)		
4 SEP	6	4.5	11(6)													7.0			
5 SEP	3	6.0	11(5)	38(1)												7.0			
6 SEP	2	1.0	11(6)													7.0			
8 SEP	3	6.0	11(2)	24(20)												7.0			
10 SEP	3	6.0	11(1)	24(25)												7.0			
11 SEP	3	6.0	11(1)	24(1)												7.0			
12 SEP	3	6.0	22(1)	24(75)												6.0	11(9)	12(1)	
14 SEP	6	3.0	11(8)														26(7)	39(1)	
15 SEP	6	6.0	11(16)	12(2)	22(1)											6.0	11(13)	26(6)	
			26(6)													3.0	11(4)	25(2)	
21 SEP	3	6.0	11(2)	22(1)	24(6)												60(1)		
22 SEP	2	2.0	6(2)	11(1)	25(2)											6.0	11(3)	39(1)	
23 SEP	2	4.0	6(1)	11(1)	25(1)											6.0	11(1)	39(4)	
23 SEP	6	6.0	11(6)	19(1)	24(3)											6.0	6(2)	11(19)	
			26(1)													12(1)	19(2)	25(2)	
28 SEP	3	6.0	11(1)	22(1)	24(4)											6.0	6(1)	11(1)	
			29(1)													3.0	11(11)	19(1)	
1 OCT	3	7.0														3.0	11(9)	25(1)	
2 OCT	3	7.0														6.0	24(10)		
2 OCT	3	6.0	38(1)													4.0	3(1)	11(3)	
3 OCT	3	6.0															23(1)	25(2)	
3 OCT	3	7.0														6.0	11(18)	12(1)	
4 OCT	3	7.0															26(2)	25(3)	
4 OCT	6	3.0	11(27)													6.0	1(1)	7(1)	
5 OCT	3	6.0															19(1)	60(2)	
7 OCT	6	4.0	6(1)	11(12)	24(2)											6.0	11(19)	25(1)	
9 OCT	3	6.0															26(1)	25(8)	
9 OCT	3	6.0	6(2)	11(1)	24(9)											2.5	3(1)	11(10)	
			61(2)													26(2)	57(1)	60(1)	
10 OCT	2	3.0	11(7)	25(2)	26(2)											6.0	11(14)	24(2)	
12 OCT	6	6.0	6(1)	11(19)	25(3)												74(1)	25(2)	

APPENDIX TABLE 2 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --						DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --						
			1	11	6	19	1	25				6	1	11	2	24	19	4
16 NOV	6	6.0	1(1)	11(6)	19(1)	24(1)	25(2)	26(1)	25 DEC	3	6.0+	25(7)						
17 NOV	6	6.0	1(1)	11(9)	19(2)	26(2)	60(3)		26 DEC	3	6.0	11(2)	24(19)	25(4)				
17 NOV	6	6.0	1(1)	11(10)	19(2)				26 DEC	3	6.0	6(1)	11(2)	24(12)				
18 NOV	6	6.0	11(6)	19(1)	24(2)				27 DEC	3	2.0	24(1)	25(3)	39(1)				
			74(1)						28 DEC	3	5.0	1(33)	11(1)	12(1)				
												24(1)						
19 NOV	3	6.0	1(1)	39(1)					28 DEC	3	6.0	1(8)	6(2)	24(4)				
19 NOV	6	6.0	11(8)	12(1)	24(2)				29 DEC	6	6.0	1(1)	11(1)	19(3)				
20 NOV	6	6.0	11(9)	25(1)	39(1)							25(4)						
20 NOV	3	6.0	1(1)	11(1)	25(1)				29 DEC	3	6.0	1(5)	23(1)	24(6)				
21 NOV	6	6.0	1(1)	6(1)	11(6)							25(4)						
22 NOV	6	6.0	11(14)	18(1)	19(2)				30 DEC	3	6.0	1(4)	11(1)	19(1)				
			24(1)	25(3)	26(1)							24(7)	25(6)					
23 NOV	6	6.0	1(2)	11(5)	19(3)				30 DEC	6	7.0	1(5)	24(6)	25(1)				
			25(5)	26(3)	39(1)				31 DEC	6	6.0	1(1)	11(2)	24(2)				
			67(1)	74(1)								25(2)						
26 NOV	6	6.5	11(12)	19(1)	24(1)				31 DEC	3	6.0	11(2)	19(1)	24(2)				
			25(3)	26(1)	57(1)							39(1)						
30 NOV	3	6.0	11(1)	22(7)	24(14)													
			36(1)	39(1)														
30 NOV	6	6.0	6(2)	11(1)	24(28)													
			25(4)	26(2)	75(1)													
1 DEC	3	6.0	11(4)	24(5)														
2 DEC	3	3.0	8(2)	24(2)	39(1)													
2 DEC	2	6.0	1(5)	6(1)	11(2)													
			24(12)	25(1)	75(1)													
9 DEC	2	3.0	1(14)	11(3)	25(2)													
			67(1)															
10 DEC	2	3.0	1(7)	25(1)	60(1)													
10 DEC	3	3.0	1(3)	11(2)														
11 DEC	3	6.0	1(1)	11(3)	24(12)													
			36(2)	39(1)														
11 DEC	2	3.0	24(5)	25(1)														
12 DEC	3	3.0	1(1)	6(3)														
12 DEC	3	4.0	11(2)	24(11)	25(1)													
16 DEC	3	6.0	1(1)	24(4)														
21 DEC	3	3.0	1(1)	6(1)	11(4)													
			24(3)	25(4)														
21 DEC	6	6.0	1(1)	6(3)	11(10)													
			18(1)	19(1)	25(4)													
22 DEC	6	6.0	1(3)	6(1)	11(12)													
			19(3)	25(4)														
23 DEC	2	6.0	1(2)	6(1)	11(16)													
			19(1)	24(7)	25(2)													
25 DEC	3	6.0	6(2)	11(3)	24(14)													

APPENDIX TABLE 3. LOGGED 1982 BOTTOMFISHING CATCH AND EFFORT FROM KEY WEST, FL.

DATE	ZONE	HOURS		DATE	ZONE	HOURS	
		FISHED	-- CATCH PER SPECIES ---			FISHED	-- CATCH PER SPECIES ---
30 MAR	2	1.0	13(3)				
1 APR	2	1.0	13(2)				
2 APR	3	1.0	13(3)				
3 APR	3	1.0	13(4)				
6 APR	3	1.0	13(4)				
7 APR	3	1.5	13(5)				
9 APR	3	1.5	13(5)				
10 APR	3	1.5	13(3)				
13 APR	3	1.0	13(4)				
14 APR	3	3.0	13(8)				
18 APR	3	1.0	13(5)				
19 APR	3	1.5	13(4)				
24 APR	3	1.0					
27 APR	3	1.0	13(4)				
28 APR	3	1.0	13(4)				
29 APR	3	1.0	13(4)				
1 MAY	3	1.5	13(6)				
4 MAY	3	1.0	13(5)				
5 MAY	3	1.0	13(3)				
18 MAY	3	1.0	13(2)				
24 MAY	3	1.0	13(5)				
25 MAY	3	2.0	8(1) 13(8)				
31 MAY	3	1.5	13(4)				
7 JUN	3	1.5	13(1)				
14 JUN	3	1.0	13(4)				
3 JUL	2	3.0					
10 JUL	2	2.5	26(104)				
16 AUG	3	2.5	13(3)				
25 AUG	3	2.0	13(3) 37(1)				
22 SEP	2	8.0	2(1) 11(3) 18(14) 26(21) 42(14) 54(9) 64(1)				
23 SEP	2	8.0	11(2) 18(9) 26(27) 42(19) 54(6)				

APPENDIX TABLE 4. LOGGED 1982 TROLL-FISHING CATCH AND EFFORT FROM PANAMA CITY, FL.

DATE	ZONE	HOURS FISHED	HOURS -- CATCH PER SPECIES --				DATE	ZONE	HOURS FISHED	HOURS -- CATCH PER SPECIES --						
			3(47)	5(28)	1(7)	4(4)				1(9)	6(1)	7(1)	1(2)	3(1)	6(1)	
3 APR	1	6.0	3(47)	5(28)	1(7)	4(4)	6(2)	24(12)	16 JUN	3	2.0	1(7)				
11 APR	1	3.5	3(4)	5(1)					17 JUN	6	4.0	1(4)	6(2)	24(12)		
15 APR	1	3.0	3(4)	5(12)					18 JUN	6	8.5	1(9)	6(1)	7(1)		
16 APR	1	10.0	3(1)	5(107)							24(6)					
17 APR	1	6.0	5(86)						19 JUN	6	2.5	1(2)	3(1)	6(1)		
24 APR	1	3.5	3(26)	4(1)	5(1)						11(1)	20(1)				
30 APR	4	10.5	3(26)	6(2)	7(22)				20 JUN	2	4.5	1(8)	24(6)			
			8(27)						22 JUN	2	6.5	1(4)	6(2)	8(1)		
1 MAY	4	8.5	3(17)	5(27)	7(11)						24(32)					
			8(3)						23 JUN	2	2.5	6(1)	24(3)			
4 MAY	4	10.0	3(8)	5(32)	6(2)				24 JUN	2	2.5	1(1)	8(1)	24(1)		
			7(32)	8(18)	23(1)				25 JUN	6	5.5	1(2)	2(1)	6(3)		
7 MAY	4	4.5	2(1)	7(1)	9(1)						8(1)	13(9)	24(2)			
15 MAY	4	7.0	2(1)	5(8)	7(2)				26 JUN	2	2.5	6(3)	8(2)			
			8(1)						27 JUN	4	7.0	3(1)	6(13)	7(78)		
16 MAY	2	3.0	3(3)	7(22)	9(7)						24(4)					
19 MAY	4	3.0	5(1)	6(3)	7(22)				28 JUN	2	3.0	6(1)	7(7)	8(1)		
20 MAY	2	3.5	2(1)	6(3)	7(26)						24(1)					
			8(3)						29 JUN	2	3.5	6(1)	7(2)	24(1)		
21 MAY	4	7.0	3(5)	5(1)	6(5)					1 JUL	4	3.5	6(8)	7(12)		
			7(86)	8(6)					4 JUL	3	5.5	1(1)	6(2)	24(1)		
22 MAY	2	6.0	3(3)	6(2)	7(23)					6 JUL	3	2.5	1(1)			
			8(3)						7 JUL	2	3.0	7(2)	13(3)	24(1)		
23 MAY	2	3.0	3(2)	6(11)	7(21)					8 JUL	2	4.0	13(1)	16(1)	19(2)	
			8(7)								24(1)					
26 MAY	4	3.5	5(1)	6(5)	7(38)				9 JUL	3	3.5	7(2)	24(4)			
28 MAY	2	6.0	7(5)	8(5)	13(5)				10 JUL	3	8.0	1(3)	6(1)	8(1)		
			54(1)								13(8)	24(2)				
29 MAY	2	8.0	1(2)	6(26)	7(48)				12 JUL	2	3.0	6(1)	13(7)	19(1)		
			8(1)	20(1)	24(12)						24(5)					
30 MAY	4	5.0	3(3)	5(3)	6(8)				14 JUL	2	6.5	6(1)	7(1)	13(7)		
			7(98)	8(18)							19(3)					
31 MAY	4	5.5	6(2)	7(32)	9(13)				17 JUL	2	3.5	13(10)	19(2)	20(1)		
3 JUN	2	3.5	6(3)	7(119)	9(3)				20 JUL	2	3.0					
5 JUN	4	9.5	3(1)	5(3)	6(20)				21 JUL	2	5.5	1(2)	3(3)	6(3)		
			7(118)	9(2)	13(1)						8(15)					
			24(2)						22 JUL	2	6.5	1(3)	6(1)			
6 JUN	2	6.0	1(1)	3(1)	6(3)				23 JUL	2	2.5	7(1)				
			7(15)	13(1)					25 JUL	2	3.0	1(6)	6(2)	24(3)		
7 JUN	2	6.0	6(9)	7(16)					26 JUL	2	2.5	24(21)				
8 JUN	2	6.0	6(26)	7(1)					27 JUL	2	5.5	1(1)	24(39)			
9 JUN	2	3.0	6(38)	7(61)					30 JUL	2	2.5	3(1)	6(7)			
10 JUN	6	5.0	6(4)	24(5)					31 JUL	2	3.0	3(12)	6(121)	7(6)		
11 JUN	2	3.0	1(1)	2(1)	8(3)						9(14)					
12 JUN	2	3.0	6(32)	7(7)					1 AUG	2	2.5	6(3)	13(1)			
14 JUN	2	3.0	1(1)	6(8)	24(11)				2 AUG	1	3.5	3(21)	6(9)	7(6)		
15 JUN	3	3.0	1(10)	2(1)					3 AUG	2	3.5	6(9)	7(6)			

APPENDIX TABLE 4 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --			DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --		
			1(14)	3(4)	6(7)	7(5)			9(4)	1(2)	3(2)
5 AUG	2	6.5	1(14)				29 SEP	2	4.0		
6 AUG	2	2.5	3(4)	6(7)	7(5)		30 SEP	2	3.0	6(2)	
			9(4)				2 OCT	2	6.0	1(2)	3(2)
11 AUG	2	3.5	3(18)	6(3)	7(1)		3 OCT	2	5.0	1(7)	
12 AUG	2	3.5	3(38)	6(12)			5 OCT	2	2.5	1(10)	6(1)
13 AUG	2	3.5	3(1)	6(15)	7(2)		6 OCT	2	5.5	1(1)	6(1)
14 AUG	2	9.0	1(2)	3(2)	6(13)		7 OCT	2	3.0	3(6)	5(1)
			7(2)	24(5)						6(4)	
15 AUG	2	2.5	6(2)	24(8)			8 OCT	2	4.0	1(5)	6(1)
17 AUG	2	3.5	3(2)	6(7)	9(3)		9 OCT	4	8.0	1(14)	3(2)
19 AUG	2	3.5	3(18)	6(17)	7(6)					6(12)	
			9(6)				10 OCT	2	6.0	1(3)	
21 AUG	1	7.0	3(41)	6(48)			11 OCT	2	6.0	1(16)	6(1)
23 AUG	2	3.5	1(34)	3(2)	6(2)		14 OCT	2	6.0	1(10)	
24 AUG	2	3.5	1(20)	3(1)	20(1)		16 OCT	2	2.5	1(2)	
25 AUG	1	3.5	3(49)	6(10)			23 OCT	4	8.5	3(5)	5(2)
28 AUG	3	9.0	1(26)	20(1)						6(4)	
29 AUG	2	5.0	1(1)	20(2)							
30 AUG	2	4.0	1(5)	6(4)	24(1)						
31 AUG	2	3.5	6(2)	24(1)							
2 SEP	4	3.5	3(80)	6(4)	7(25)						
4 SEP	4	5.5	1(3)	3(60)	7(13)						
			20(4)								
5 SEP	4	7.5	1(1)	2(1)	3(53)						
			6(4)	7(2)							
6 SEP	1	3.5	3(1)	6(9)							
7 SEP	1	7.0	4(16)	6(18)	20(1)						
8 SEP	2	7.0	3(154)	6(17)							
11 SEP	4	10.0	3(69)	6(3)	7(11)						
			9(5)								
12 SEP	4	3.5	1(6)	3(30)	7(11)						
			9(3)								
13 SEP	4	7.0	3(75)	6(4)	7(5)						
14 SEP	1	3.0	3(45)	6(4)							
16 SEP	4	3.5	3(19)	6(3)	7(6)						
			12(4)								
17 SEP	2	6.5	1(4)	6(1)	20(1)						
			24(2)								
18 SEP	3	10.0	1(6)	6(3)	20(1)						
			24(2)								
19 SEP	3	7.5	1(31)	3(1)	20(1)						
			24(7)								
20 SEP	3	7.0	1(27)	24(5)							
22 SEP	2	2.5	1(2)	3(1)	24(2)						
25 SEP	2	8.0	1(8)	3(1)	20(1)						
26 SEP	2	6.5	1(68)								
27 SEP	3	2.5	1(16)	13(1)							

APPENDIX TABLE 5. LOGGED 1982 TROLL-FISHING CATCH AND EFFORT FROM GRAND ISLE, LA.

DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---					DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---					
16 APR	3	1.0					12 JUL	3	5.0	22(8) 24(305)				
17 APR	3	1.0					12 JUL	3	6.5	22(2) 24(4)				
27 APR	3	4.0					17 JUL	3	5.0	7(14) 24(68)				
15 MAY	2	3.5	3(2) 6(1) 7(1)				26 JUL	3	4.5	24(319) 41(5)				
		12(1)					26 JUL	3	6.0	22(2) 24(42)				
16 MAY	3	2.0	11(3) 22(1)				27 JUL	3	6.0	21(1) 24(38)				
16 MAY	3	2.0	3(12) 5(6) 6(15)				29 JUL	3	5.0	22(4) 24(3)				
		7(12)					29 JUL	3	6.0	22(2) 24(1)				
19 MAY	3	1.0	3(1) 7(12)				30 JUL	3	6.0	22(2) 24(25)				
20 MAY	3	1.0	11(1) 22(1) 24(3)				30 JUL	3	5.5					
21 MAY	3	5.0	2(2) 22(2) 24(73)				31 JUL	3	6.0	21(1) 22(3) 24(2)				
		36(1)					31 JUL	3	5.0	21(2)				
22 MAY	3	4.0	11(1) 24(68) 40(1)				2 AUG	3	2.5	1(1) 3(24) 6(6)				
23 MAY	3	4.5	2(3) 6(3) 23(1)						7(10) 12(4)					
		24(11)					3 AUG	3	7.0	21(1) 22(1) 24(6)				
25 MAY	3	1.0	24(23)				4 AUG	3	1.0	3(1) 6(1)				
26 MAY	3	0.5	24(40)				5 AUG	3	3.0	22(1)				
27 MAY	3	1.0	24(4)				7 AUG	3	1.5	1(1) 3(10)				
28 MAY	3	2.0	1(4) 6(4) 12(14)				9 AUG	3	4.0	13(7) 24(83) 41(2)				
29 MAY	3	2.0	1(1) 6(2) 7(10)						99(2)					
		12(5)					9 AUG	3	2.5	1(1) 3(14) 4(4)				
									5(2) 6(6) 7(10)					
31 MAY	3	1.0												
1 JUN	3	5.0	3(12) 5(8) 7(19)				11 AUG	3	6.5	21(1) 24(6)				
4 JUN	3	5.5	24(233)				13 AUG	3	1.0	3(3)				
9 JUN	3	3.0	7(2) 24(260)				14 AUG	3	2.0	24(43)				
10 JUN	2	2.0	3(4) 5(1)				15 AUG	3	2.0	1(2) 5(6) 6(5)				
19 JUN	3	3.0	2(2) 13(8) 24(167)						12(1)					
20 JUN	3	4.0	6(3) 24(57)				21 AUG	3	6.0	3(32) 4(2) 5(7)				
21 JUN	3	1.0	24(2)						7(10)					
23 JUN	3	4.0	22(1) 24(202)				22 AUG	3	3.0	1(2) 3(24) 4(6)				
25 JUN	3	4.0	6(1) 7(4) 22(1)						6(4) 12(1)					
		24(215) 36(3)					24 AUG	3	2.5	1(1) 3(32)				
27 JUN	3	4.0	1(5) 6(11) 7(6)					27 AUG	3	4.0	1(3) 2(1) 6(6)			
		12(4)							7(3) 12(4) 23(2)					
29 JUN	3	3.0	3(25) 5(6) 6(18)						29(3) 52(7)					
		7(10) 12(6)						28 AUG	1	2.0	3(9) 4(9)			
2 JUL	3	7.0	21(1) 22(2) 24(64)							3(20) 4(24) 6(6)				
2 JUL	3	4.0	6(3) 7(5) 24(64)				28 AUG	3	3.0	3(9) 4(43) 6(1)				
		36(2) 61(2)					29 AUG	2	2.0					
3 JUL	3	4.0	1(2) 6(18) 7(3)					29 AUG	3	3.0	3(26) 4(51) 5(4)			
		12(11)								6(12) 12(2)				
3 JUL	3	8.0	21(5) 22(3) 24(85)				1 SEP	6	5.0	3(5) 5(1) 6(18)				
4 JUL	3	6.0	22(2)							12(4) 23(1)				
7 JUL	3	4.0	36(4) 61(1)				2 SEP	6	6.0	3(8) 4(13) 6(14)				
10 JUL	3	6.0	22(2) 24(35)				3 SEP	3	3.0	3(14) 4(24) 5(2)				
11 JUL	3	7.0	22(3) 24(10)							6(6) 12(4)				
11 JUL	3	3.0	22(1) 24(196)				4 SEP	3	5.0	3(62) 4(11) 5(4)				

APPENDIX TABLE 5 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --	DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --
4 SEP	3	5.0+	6(5) 12(3)				
5 SEP	3	5.0	3(15) 4(12)				
5 SEP	3	5.0	22(5) 55(1)				
6 SEP	3	2.0	7(3) 13(5) 22(1)				
			24(21)				
7 SEP	3	4.5	1(2) 6(17) 12(6)				
			23(6)				
12 SEP	3	1.0					
17 SEP	3	6.0	11(5) 22(7) 23(2)				
			24(1)				
26 SEP	3	1.5	6(3) 7(1) 23(3)				
8 OCT	3	1.5	6(3)				
2 NOV	3	2.0					
7 NOV	3	1.0	6(4)				
7 NOV	3	5.0	1(7) 5(6) 7(5)				

APPENDIX TABLE 6. LOGGED 1982 BOTTOMFISHING CATCH AND EFFORT FROM GRAND ISLE, LA.

DATE	ZONE	HOURS FISHED	— CATCH PER SPECIES —						DATE	ZONE	HOURS FISHED	— CATCH PER SPECIES —					
			5(10)	7(20)	13(12)	23(2)	14(5)	21(1)	12(1)	20(6)	3.5+	6(2)	12(3)	14(2)	23(10)	36(3)	
1 APR	3	6.0	5(10)	7(20)	13(12)	23(2)	17 MAY	3	3.5+	14(5)	23(6)	36(2)	36(1)	36(1)	36(1)	36(1)	36(1)
4 APR	6	5.0	6(2)	7(12)	13(16)	23(2)	19 MAY	3	3.5	2(1)	12(1)	20(6)	2(1)	2(1)	2(1)	2(1)	2(1)
12 APR	6	5.0	6(4)	7(6)	12(1)	13(14)	20 MAY	3	3.5	6(2)	12(3)	14(2)	23(10)	36(3)	23(10)	36(3)	23(10)
16 APR	3	4.0	7(8)	14(82)	27(21)	29(1)	22 MAY	3	1.0	2(1)	23(3)	36(2)	29(1)	30(2)	2(2)	14(1)	27(28)
17 APR	3	3.5	7(1)	14(22)	27(2)	28(2)	25 MAY	3	5.0	2(2)	14(1)	27(28)	28(28)	41(1)	45(1)	48(1)	52(1)
17 APR	3	4.0	7(8)	14(55)			26 MAY	3	5.5	2(1)	13(1)	17(6)	20(4)	27(11)	42(2)	20(4)	27(11)
18 APR	3	6.0	1(12)	2(2)	6(4)	7(10)	18 APR	3	4.0	1(4)	7(1)	13(1)	14(58)	16(4)	20(1)	20(4)	27(11)
19 APR	3	5.0	1(1)	7(12)	13(12)	14(26)	19 APR	3	4.0	14(58)	16(4)	20(1)	27(15)	28(5)	29(2)	27(15)	28(5)
27 APR	3	2.0	2(1)	7(3)	13(1)	14(15)	27 APR	3	4.0	41(1)	42(1)	48(2)	20(1)	20(1)	52(1)	41(1)	42(1)
28 APR	3	5.0	2(1)	7(2)	13(2)	14(23)	28 APR	3	4.5	14(86)	17(3)	20(5)	20(2)	27(3)	27(3)	14(41)	20(20)
30 APR	3	4.0	2(1)	7(3)	14(14)	27(15)	30 APR	3	4.0	2(1)	5(6)	11(1)	13(1)	14(35)	20(16)	13(1)	14(35)
1 MAY	3	2.0	2(1)	5(9)	6(1)	12(3)	1 MAY	3	5.0	2(1)	5(5)	14(47)	16(4)	20(1)	27(5)	16(4)	20(1)
1 MAY	3	6.0	1(1)	5(8)	6(2)	7(10)	1 MAY	3	6.0	5(10)	7(5)	14(41)	20(2)	20(25)	41(1)	41(1)	20(25)
2 MAY	3	5.0	5(4)	6(6)	7(10)	13(14)	2 MAY	3	5.0	2(1)	24(160)	31 MAY	3	3.5	2(4)	6(3)	7(3)
2 MAY	3	4.0	2(1)	12(1)	13(7)	14(14)	2 MAY	3	3.5	14(17)	20(1)	27(2)	29(1)	29(1)	14(17)	20(1)	27(2)
6 MAY	3	5.0	4(1)	5(1)	14(18)	27(77)	6 MAY	3	5.5	1(1)	2(2)	11(1)	30(9)	43(1)	44(1)	13(1)	14(52)
7 MAY	3	4.5	5(1)	7(3)	14(13)	28(15)	7 MAY	3	1.0	20(20)	29(2)	30(11)	30(9)	43(1)	44(1)	27(33)	28(10)
8 MAY	3	5.0	5(1)	7(16)	14(8)	27(55)	8 MAY	3	6.0	2(6)	24(200)	30(3)	6.0	2(5)	24(178)	27(33)	28(10)
15 MAY	3	2.0	14(1)	27(13)	28(18)	42(1)	15 MAY	3	6.0	2(8)	24(185)	5 JUN	3	6.0	7(15)	14(120)	20(15)
15 MAY	3	6.0	2(2)	5(6)	6(2)	7(10)	15 MAY	3	4.0	1(1)	7(5)	12(1)	13(2)	14(1)	17(2)	13(2)	14(1)
16 MAY	3	5.0	2(1)	13(4)	14(25)	20(2)	16 MAY	3	6.0	13(2)	14(1)	17(2)	20(8)	27(32)	28(2)	41(4)	47(1)
16 MAY	3	2.5	6(1)	12(3)	23(9)	20(2)	16 MAY	3	6.0	2(1)	5(10)	7(8)	41(4)	47(1)	62(2)	8(5)	12(2)
17 MAY	3	3.5	2(2)	6(6)	12(3)	23(2)	17 MAY	3	6.0	8(5)	12(2)	14(52)	8(5)	12(2)	14(52)	8(5)	12(2)

APPENDIX TABLE 6 (CONTINUED).

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --	DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES --
8 JUN	3	6.0+	16(1) 20(31)	15 JUL	3	6.0	1(1) 2(2) 6(6)
9 JUN	3	1.0	2(1) 14(5) 20(2)			14(48)	20(10)
			28(1)	16 JUL	3	6.0	2(1) 13(3) 14(42)
10 JUN	3	2.0	13(2) 14(13) 20(1)			20(5)	
10 JUN	3	6.0	2(5) 12(2) 24(155)	17 JUL	3	6.0	1(1) 2(2) 7(5)
11 JUN	3	5.0	1(2) 7(2) 14(12)			13(1) 14(28) 20(12)	
			17(3) 27(94)			24(1)	
12 JUN	3	5.0	1(5) 12(1) 14(1)	18 JUL	3	5.5	1(1) 2(7) 6(4)
			27(64) 49(1) 50(1)			13(2) 14(38) 20(6)	
12 JUN	3	6.0	2(7) 24(185)	19 JUL	3	4.0	1(1) 12(1) 20(2)
13 JUN	3	5.0	1(2) 2(1) 6(6)			27(31) 28(3) 49(1)	
			7(10) 12(1) 13(2)			66(1) 69(2)	
			14(36) 20(10) 24(86)	20 JUL	3	5.0	1(2) 6(1) 14(3)
13 JUN	3	5.0	2(3) 24(255)			27(51) 28(2) 69(3)	
14 JUN	3	5.5	2(4) 24(174)	23 JUL	3	5.0	1(8) 2(1) 6(2)
17 JUN	3	5.0	1(12) 2(6) 7(2)			11(1) 13(1) 14(12)	
			8(1)			16(1) 20(4) 27(64)	
18 JUN	3	5.0	2(3) 24(225)			28(8)	
19 JUN	3	6.0	2(2) 14(45) 20(20)	24 JUL	3	5.0	1(2) 5(1) 14(10)
			24(122)			27(76) 28(3) 30(5)	
19 JUN	3	2.0	1(1) 6(1) 7(3)	24 JUL	3	6.0	1(1) 2(1) 6(2)
			13(7) 20(3) 29(2)			11(1) 14(60) 20(4)	
			57(2)	25 JUL	3	6.0	2(1) 12(1) 13(1)
20 JUN	3	1.0	1(1) 2(4) 6(3)			14(32) 20(6)	
			12(2) 14(7)	25 JUL	3	5.0	1(2) 2(2) 6(1)
20 JUN	3	6.0	2(2) 6(1) 7(6)			7(1) 13(1) 14(18)	
			12(2) 13(2) 14(62)			20(5) 27(110) 30(6)	
			20(5)			42(3) 54(1) 57(10)	
21 JUN	3	6.0	1(4) 2(2) 24(65)			69(2) 70(1)	
21 JUN	3	4.0	1(13) 2(1) 6(9)	26 JUL	3	0.5	2(2) 30(1) 57(1)
			7(3) 12(4) 52(5)	1 AUG	3	5.5	1(2) 2(1) 12(2)
22 JUN	3	6.0	2(3) 13(5) 14(48)			14(22) 20(10)	
23 JUN	3	1.0	1(6)	2 AUG	3	3.0	14(12) 20(6)
26 JUN	3	4.0	1(1) 14(12) 27(5)	3 AUG	3	5.0	1(1) 2(1) 8(1)
			28(4)			12(2) 14(4) 27(27)	
27 JUN	3	2.0	2(2) 13(2) 14(46)			29(3) 52(1) 69(1)	
			16(2) 20(14)	4 AUG	3	4.0	1(1) 2(1) 12(2)
29 JUN	3	3.0	13(6) 14(22) 20(10)			14(2) 27(59) 29(5)	
2 JUL	3	1.0	13(11) 41(15)			30(3) 52(1) 58(13)	
3 JUL	3	1.0	2(5) 20(2) 54(11)	4 AUG	3	7.0	
7 JUL	3	5.0	14(56) 20(10)	5 AUG	3	4.0	
9 JUL	3	4.0	11(1) 13(7) 14(35)	7 AUG	3	5.0	14(15) 20(4)
			20(3) 29(1)	7 AUG	3	5.0	1(3) 14(9) 27(95)
10 JUL	3	4.0	2(3) 13(3) 14(34)			28(3) 29(5) 42(1)	
			20(1) 30(3) 41(6)	8 AUG	3	5.0	1(1) 5(1) 12(3)
11 JUL	3	2.0	1(1) 8(8) 12(1)			14(11) 20(1) 27(326)	
			29(5)			30(6) 71(3)	

APPENDIX TABLE 6 (CONTINUED).

DATE	ZONE	HOURS FISHED	— CATCH PER SPECIES —						DATE	ZONE	HOURS FISHED	— CATCH PER SPECIES —					
			14(10)	20(6)	1(1)	14(2)	17(1)	27(161)				1(1)	2(2)	7(4)	13(7)	14(13)	30(8)
9 AUG	3	3.5	14(10)	20(6)					16 SEP	3	5.0+	42(4)	52(3)	63(2)			
13 AUG	3	6.5	14(25)						17 SEP	3	5.0	1(2)	5(3)	7(1)			
13 AUG	3	3.0	1(1)	14(2)	17(1)							13(1)	14(26)	17(1)			
			27(161)	30(3)	52(1)							20(2)	27(97)	29(4)			
14 AUG	3	2.0	1(1)	2(2)	7(4)							42(1)	43(1)	52(1)			
			13(7)	14(13)	30(8)							63(3)					
			49(1)	50(4)	52(1)				18 SEP	3	5.0	1(1)	5(5)	7(4)			
14 AUG	3	6.0	1(1)	14(45)								14(11)	20(2)	27(299)			
15 AUG	3	4.0	14(20)									28(7)	29(10)	42(2)			
15 AUG	3	5.0	1(4)	7(2)	12(1)							43(2)	52(2)	63(2)			
			14(31)	18(7)	20(1)				18 SEP	3	5.0	1(2)	4(5)	5(6)			
			27(203)	28(19)								6(1)	7(12)	9(1)			
16 AUG	3	5.0	1(2)	5(4)	7(4)							12(2)	13(1)	14(19)			
			13(3)	14(40)	16(3)							20(11)					
			17(2)	20(2)	27(69)				19 SEP	3	5.5	1(6)	5(5)	7(12)			
			28(1)	49(1)	54(2)							13(2)	14(25)	20(16)			
			63(1)						19 SEP	3	4.5	2(1)	5(2)	7(5)			
17 AUG	3	5.0	1(5)	7(8)	12(1)							14(12)	20(2)	27(174)			
			14(52)	16(2)	27(44)							28(3)	63(3)				
			28(7)	29(3)	52(2)				20 SEP	3	5.5	1(1)	5(4)	7(9)			
17 AUG	3	6.0	1(1)	14(10)								14(18)	20(7)				
18 AUG	3	6.0	7(6)	14(5)	20(17)				25 SEP	3	5.5	1(2)	5(6)	6(2)			
19 AUG	3	6.0	14(37)	20(10)								7(12)	14(15)	20(6)			
20 AUG	3	6.0	13(12)	14(18)					26 SEP	3	6.0	1(2)	5(7)	6(1)			
21 AUG	3	4.5	1(2)	14(1)	27(164)							7(5)	20(4)				
			28(1)	29(1)					26 SEP	3	4.5	1(4)	5(7)	12(1)			
22 AUG	3	5.0	1(1)	14(2)	27(299)							14(35)	27(202)	28(15)			
			29(5)	35(1)	52(1)							29(12)					
22 AUG	3	3.5	14(10)	20(4)					3 OCT	3	5.5	1(4)	6(2)	7(6)			
24 AUG	3	4.0	20(10)									12(1)	14(75)	20(6)			
25 AUG	3	5.0	14(9)	16(2)	17(1)				7 OCT	3	4.5	1(1)	5(4)	7(3)			
			20(5)	27(41)	42(2)							14(3)	27(117)	28(7)			
26 AUG	3	5.0	4(1)	5(3)	7(2)							42(2)	49(1)				
			13(2)	14(26)	20(11)				8 OCT	3	3.0	1(2)	27(69)	29(1)			
			27(2)	29(2)								49(1)					
27 AUG	3	0.5	14(1)	27(11)	54(1)				8 OCT	3	5.5	1(2)	5(7)	7(2)			
28 AUG	3	2.5	1(1)	6(1)	7(1)							14(25)	20(4)				
			14(2)	27(198)	29(1)				9 OCT	3	5.5	5(3)	6(2)	14(46)			
			52(1)									20(2)					
28 AUG	3	3.0	14(6)						9 OCT	3	5.0	6(2)	7(12)	14(17)			
29 AUG	3	3.0	14(12)	20(10)								23(3)	27(27)	28(5)			
3 SEP	3	3.0										29(2)	30(23)	69(1)			
5 SEP	3	2.0	1(2)	14(10)	20(16)				10 OCT	3	5.5	1(5)	5(6)	7(5)			
6 SEP	3	2.0	2(1)	23(2)								14(45)	20(6)				
12 SEP	3	1.0	27(31)						11 OCT	3	5.5	1(2)	7(6)	14(10)			
16 SEP	3	5.0	5(2)	12(1)	14(17)				11 OCT	3	6.0	1(3)	3(1)	5(8)			
			27(76)	28(3)	30(4)							6(12)	7(7)	12(1)			

APPENDIX TABLE 6 (CONTINUED).

DATE	ZONE	FISHED	HOURS			DATE	ZONE	FISHED	HOURS		
			-- CATCH PER SPECIES ---						-- CATCH PER SPECIES ---		
11 OCT	3	6.0+	14(5)	20(1)	27(131)	7 NOV	3	4.0+	28(151)		
			28(144)	29(6)	71(1)	8 NOV	3	4.0	1(11)	27(9)	28(50)
12 OCT	3	5.5	1(6)	7(4)	14(42)				52(1)	73(3)	
			20(4)			12 NOV	3	5.0	1(1)	4(1)	5(1)
13 OCT	3	5.0	1(19)	5(3)	6(2)				7(17)	14(25)	16(5)
			12(2)	14(3)	27(163)				27(37)	28(156)	73(13)
			28(85)	29(18)		13 NOV	3	3.0	1(9)	5(4)	7(9)
14 OCT	3	3.5	1(8)	5(5)	7(2)				14(10)		
			14(2)	20(2)	27(127)	14 NOV	3	5.5	1(7)	5(6)	6(2)
			28(38)	29(12)					7(5)	14(10)	
16 OCT	3	5.0	1(3)	14(5)	27(173)	14 NOV	3	5.0	1(8)	2(1)	4(2)
			28(101)						5(3)	7(9)	14(13)
17 OCT	3	5.5	1(5)	5(10)	7(6)				16(1)	27(41)	28(109)
			12(2)						29(4)	42(1)	52(3)
19 OCT	3	5.5	1(6)	5(4)	7(10)	17 NOV	3	5.0	1(10)	4(2)	5(5)
			12(1)	14(35)	20(2)				7(4)	14(15)	
23 OCT	3	4.5	1(3)	14(8)	20(2)	18 NOV	3	5.0	4(1)	5(1)	7(14)
			27(125)	58(26)					13(3)	14(14)	27(28)
24 OCT	3	5.0	1(6)	7(2)					28(195)	42(1)	
25 OCT	3	5.0	1(5)	3(1)	5(2)	19 NOV	3	6.0	1(12)	2(1)	3(1)
			7(3)	27(37)	29(11)				4(4)	5(8)	7(9)
			58(57)	73(2)					14(11)	20(1)	27(12)
29 OCT	3	4.5	1(6)	3(1)	5(1)				28(110)	52(1)	73(24)
			7(3)	14(1)	27(17)	20 NOV	3	5.0	1(8)	5(2)	6(1)
			29(13)	54(1)	58(58)				7(8)	14(16)	
			73(3)			21 NOV	3	6.0	1(19)	4(2)	5(7)
30 OCT	3	5.0	1(2)	3(1)	7(2)				7(6)	14(7)	27(22)
			27(40)	42(1)	58(120)				28(104)	54(1)	73(21)
30 OCT	3	5.0	1(8)	5(5)	12(2)	22 NOV	3	5.5	1(7)	3(2)	5(6)
31 OCT	3	5.5	1(12)	7(2)	13(1)				7(9)		
			14(7)	27(17)	28(39)	27 NOV	3	5.0	1(10)	4(5)	5(4)
			29(13)						6(1)	7(7)	14(15)
2 NOV	3	4.0	1(11)	3(1)	5(1)	27 NOV	3	5.0	1(1)	3(1)	4(7)
			7(3)	13(1)	14(47)				5(3)	7(8)	14(9)
			16(5)	27(18)	28(17)				27(21)	28(64)	73(19)
			29(5)	42(2)	54(1)	28 NOV	3	5.0	1(13)	4(4)	5(7)
5 NOV	3	5.5	1(2)	5(3)	7(9)				7(3)	13(1)	14(13)
			14(5)	27(60)	28(143)				27(22)	29(2)	52(4)
			29(3)						58(172)	73(5)	
6 NOV	3	5.0	1(1)	4(3)	5(8)	29 NOV	3	5.0	1(7)	3(3)	4(11)
			6(2)	7(17)	13(1)				5(8)	7(5)	14(13)
			14(17)	17(1)	20(3)				27(17)	29(3)	52(1)
			27(62)	28(309)	29(4)				58(182)	73(2)	
			63(2)	73(5)		29 NOV	3	5.0	1(12)	3(2)	4(6)
6 NOV	3	5.0	1(6)	5(5)	6(2)				5(5)		
7 NOV	3	4.0	1(3)	2(1)	5(5)	4 DEC	3	5.0	1(8)	4(8)	5(10)
			7(5)	14(9)	27(42)				7(3)	14(12)	

APPENDIX TABLE 7. LOGGED 1982 TROLL-FISHING CATCH AND EFFORT FROM PORT ARANSAS, TX.

DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---				DATE	ZONE	HOURS FISHED	-- CATCH PER SPECIES ---			
			1(1)	12(1)	29(4)	24(2)				1(1)	12(1)	2(2)	1(18)
30 APR	2	6.0	1(1)	12(1)			6 JUL	2	8.0	1(8)	2(1)		
8 MAY	2	6.0	1(1)	12(18)	29(4)		6 JUL	6	8.0	1(14)	2(7)	14(1)	
15 MAY	3	6.0	29(3)							24(2)			
25 MAY	2	2.0					8 JUL	2	9.0	1(1)	14(4)		
29 MAY	2	6.0	1(2)	12(1)			8 JUL	2	8.0	1(18)	2(2)		
29 MAY	2	7.0	1(1)	12(5)			9 JUL	2	5.0	1(9)			
30 MAY	2	6.5	1(4)	12(2)			9 JUL	2	7.0				
30 MAY	2	7.0	12(3)				10 JUL	2	6.0				
2 JUN	2	2.0	1(1)	12(2)			10 JUL	2	5.5	1(3)	56(2)		
3 JUN	2	5.0	1(1)	2(3)	12(1)		11 JUL	2	5.0	1(3)	56(1)		
5 JUN	2	5.5	1(5)	12(2)			11 JUL	2	7.0	1(1)	12(1)		
5 JUN	1	6.0	58(3)				12 JUL	2	5.0	1(21)	2(1)		
7 JUN	2	5.5	1(5)	2(1)	12(1)		13 JUL	2	5.0	1(28)	39(1)	56(1)	
			24(1)				14 JUL	2	5.0	1(13)	56(1)		
11 JUN	2	5.0	1(2)	2(1)			14 JUL	2	5.0	1(20)	2(1)	29(4)	
12 JUN	2	5.5	1(3)	2(1)			15 JUL	2	5.0	1(4)	2(1)	24(15)	
12 JUN	2	5.0	1(3)				15 JUL	2	7.0	1(16)			
13 JUN	2	6.0	1(5)	2(9)	14(2)		16 JUL	6	5.0	1(10)			
			20(1)				16 JUL	2	8.0	1(23)	2(2)	6(1)	
14 JUN	2	5.0	1(6)	2(2)	13(4)		17 JUL	2	7.0	1(12)	6(1)	24(1)	
			56(1)				17 JUL	6	5.0	1(7)	2(2)		
17 JUN	2	5.0	1(22)	2(4)	6(1)		18 JUL	2	7.0	1(1)			
			29(3)				18 JUL	6	5.5	2(1)			
18 JUN	2	5.0	1(18)	29(4)	56(2)		19 JUL	6	6.0	1(9)	2(1)		
19 JUN	2	5.0	1(12)	2(1)			20 JUL	3	5.5	1(5)	2(1)	12(1)	
19 JUN	2	6.0	1(2)	12(3)			20 JUL	2	7.0	1(6)	24(3)		
20 JUN	2	5.0	1(11)	2(1)			21 JUL	2	8.0	1(16)	12(4)		
21 JUN	2	5.0	1(6)	6(1)			21 JUL	3	5.5	1(14)			
21 JUN	2	6.0	1(6)	6(1)	63(1)		22 JUL	3	5.0	1(16)			
22 JUN	2	5.0	1(12)	56(2)			22 JUL	2	8.0	1(10)	12(1)	24(1)	
23 JUN	2	5.0	1(7)				23 JUL	3	5.0	1(10)			
24 JUN	2	8.0	1(5)	6(1)			24 JUL	3	5.0	1(13)	56(7)		
24 JUN	2	5.5	1(6)	24(2)			25 JUL	3	5.0	1(9)	24(2)		
25 JUN	2	5.0	1(8)	2(1)	24(2)		25 JUL	2	8.0	1(16)	24(1)	29(3)	
25 JUN	2	3.0					26 JUL	2	8.0	1(21)	29(2)		
26 JUN	2	8.0	1(7)	2(1)			26 JUL	3	5.0	1(5)	3(1)		
26 JUN	6	5.5	1(1)	24(5)	56(1)		27 JUL	3	5.5	1(27)	24(2)		
27 JUN	2	5.0	1(13)	2(1)	72(2)		28 JUL	6	5.0	1(14)	2(2)		
28 JUN	2	7.0	1(4)	12(2)			28 JUL	2	8.0	1(14)	24(1)		
30 JUN	2	5.0	1(2)	24(1)	56(2)		29 JUL	6	5.0	1(5)	2(1)		
1 JUL	2	5.0	1(4)	5(3)			29 JUL	2	7.0	1(18)	24(2)		
2 JUL	2	7.0	1(5)				30 JUL	2	6.0	1(18)			
3 JUL	2	6.0	1(3)	12(1)			30 JUL	6	5.5	1(10)	29(2)	56(2)	
3 JUL	6	4.5	1(8)	2(2)	14(1)		31 JUL	6	5.5	1(5)	29(1)	52(1)	
			24(1)							56(4)			
4 JUL	6	5.0	1(10)	24(1)	56(3)		1 AUG	6	5.0	1(12)	2(1)		
4 JUL	2	7.0					1 AUG	2	8.0	1(6)	12(1)		

APPENDIX TABLE 7 (CONTINUED).

DATE	ZONE	HOURS FISHED	— CATCH PER SPECIES —			DATE	ZONE	HOURS FISHED	— CATCH PER SPECIES —		
2 AUG	2	7.0	1(16)	6(1)	12(4)						
2 AUG	6	5.0	1(18)	2(2)							
3 AUG	2	8.0	1(15)	6(4)	12(1)						
4 AUG	2	5.5	1(7)	56(6)							
5 AUG	2	5.5	1(3)	2(1)	56(5)						
5 AUG	2	6.0	1(12)	12(6)							
6 AUG	2	5.0	1(8)	24(2)							
7 AUG	2	8.0	1(5)	12(1)							
7 AUG	6	5.0	1(5)	24(2)							
8 AUG	2	8.0	1(22)	12(8)							
10 AUG	2	6.0	1(4)	6(2)							
10 AUG	3	5.0	1(7)	29(1)							
11 AUG	2	8.0	1(5)	12(2)							
11 AUG	3	5.0	1(7)	24(5)							
12 AUG	3	5.0	1(9)	4(1)	29(3)						
12 AUG	2	8.0	1(3)	6(1)	12(1)						
13 AUG	3	5.0	1(8)	24(20)							
13 AUG	2	8.0	1(3)	6(3)	12(2)						
14 AUG	2	7.0	1(8)	12(5)							
14 AUG	3	4.5	1(7)	56(3)							
15 AUG	3	6.0	1(6)	56(2)							
15 AUG	2	7.0	1(4)	2(1)	6(2)						
16 AUG	2	8.0	1(3)	12(1)							
16 AUG	3	5.5	1(12)	24(1)							
17 AUG	3	6.0	1(7)	56(1)							
17 AUG	2	8.0	1(5)	12(1)							
18 AUG	3	5.5	1(17)	3(1)	6(1)						
19 AUG	3	5.5	1(2)	14(12)							
19 AUG	2	8.0	1(4)	12(2)							
20 AUG	2	8.0	1(10)	6(1)	12(2)						
20 AUG	3	5.5	14(10)	24(15)	29(1)						
21 AUG	3	6.0	24(1)								
22 AUG	6	5.0	1(2)	3(8)	14(1)						
23 AUG	3	4.0	1(3)								
26 AUG	3	4.5	1(15)	24(19)							
27 AUG	3	4.5	1(13)								
28 AUG	3	4.5	1(5)								
5 SEP	2	6.0	1(2)	36(3)							
6 SEP	2	7.0	1(3)	2(1)	36(5)						
12 SEP	2	1.0	3(18)								
18 SEP	2	4.0	3(148)								
18 SEP	2	6.0	3(31)								
19 SEP	2	4.0	3(150)								
19 SEP	2	6.0	3(28)	61(1)							
25 SEP	2	1.0	3(18)								

APPENDIX TABLE 8. LOGGED 1982 BOTTOMFISHING CATCH AND EFFORT FROM PORT ARANSAS, TX.

DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---			DATE	ZONE	HOURS FISHED -- CATCH PER SPECIES ---		
24 APR	1	4.0	4(3)						
29 APR	1	5.0	4(5) 31(1)						
11 MAY	1	3.0	58(6)						
21 MAY	1	6.0	4(5) 34(1)						
25 MAY	2	4.0	14(11) 37(1)						
31 MAY	1	5.0	4(8) 34(1)						
8 JUN	1	4.0	4(3)						
15 JUN	1	3.0	4(2) 58(4)						
17 JUN	1	2.0	58(6)						
1 AUG	2	1.0	14(20)						
2 AUG	2	1.0	14(30)						
4 AUG	2	1.0	14(15)						
5 AUG	2	1.0	14(30)						
15 SEP	1	4.0	4(2) 34(1)						
24 SEP	1	4.0	4(8) 9(2) 31(14)						
25 SEP	1	4.0	4(3) 9(1) 31(8)						
16 OCT	1	4.5	4(5) 34(1)						
19 OCT	1	5.0	4(4)						
20 OCT	1	5.0	4(3) 34(1)						
29 OCT	1	5.0	4(4)						
30 OCT	1	5.0	4(7) 34(1)						